

United States Environmental Protection Agency
Region 8, Air Program
1595 Wynkoop Street
Denver, CO 80202



**Air Pollution Control
Synthetic Minor Source Permit to Construct**

40 CFR 49.151

SMNSR-UO-000877-2014.001

*Permit to Construct to establish legally and practically enforceable
limitations and requirements on sources at an existing facility.*

Permittee:

Berry Petroleum Company, LLC

Permitted Facility:

Section 23 Compressor Station
Uintah and Ouray Indian Reservation
Duchesne County, Utah

Summary

On March 21, 2014, we received an application from Berry Petroleum Company, LLC (Berry), a wholly owned subsidiary of Linn Energy, requesting a synthetic minor permit for the Section 23 Compressor Station in accordance with the requirements of the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR Part 49.

This proposed permit action applies to an existing facility operating on the Uintah and Ouray Indian Reservation in Utah.

This permit does not authorize the construction of any new emission sources, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. This permit is only intended to incorporate required and requested enforceable emission limits and operational restrictions from a September 24, 2013, Federal Combined Complaint and Consent Agreement and Final Order (CAFO) between the EPA and Berry (Docket No. CAA-08-2013-0014) (see 40 CFR 49.151(c)(1)(ii)(d)) and 49.158(a)(c)(4)(ii) and (iii)), and a March 21, 2014 MNSR application. Berry requested a requirement to control emissions from a tri-ethylene glycol (TEG) dehydration system using an enclosed combustor capable of reducing volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions and requested associated VOC and HAP emission limits. Berry also requested enforceable restrictions for installation and operation of a catalytic control system on one (1) of the compressor engines at the facility, including CO, VOC, and formaldehyde emission limits.

Upon compliance with the permit, Berry will have legally and practically enforceable restrictions on emissions that can be used when determining the applicability of other Clean Air Act (CAA) permitting requirements, such as under the Prevention of Significant Deterioration (PSD) Permit Program at 40 CFR Part 52 and the Title V Operating Permit Program at 40 CFR Part 71 (Part 71).

The EPA has determined that issuance of this MNSR permit will not contribute to National Ambient Air Quality Standards (NAAQS) violations, or have potentially adverse effects on ambient air quality.

Table of Contents

| | |
|---|----|
| I. Conditional Permit to Construct | 4 |
| A. General Information..... | 4 |
| B. Applicability..... | 4 |
| C. Requirements for the TEG Dehydration System..... | 4 |
| D. Requirements for Records Retention | 7 |
| E. Requirements for Reporting | 8 |
| II. General Provisions | 9 |
| A. Conditional Approval..... | 9 |
| B. Authorization..... | 11 |

I. Conditional Permit to Construct

A. General Information

| | |
|---|--|
| <u>Facility:</u> | Berry Petroleum Company, LLC – Section 23 Compressor Station |
| <u>Permit number:</u> | SMNSR-UO-000877-2014.001 |
| <u>SIC Code and SIC Description:</u> | 1311- Crude Petroleum and Natural Gas |
| <u>Site Location:</u> | <u>Corporate Office Location</u> |
| Section 23 Compressor Station | Berry Petroleum Company, LLC |
| NE ¼, SE ¼ Sec 23 T5S R5W | 1999 Broadway Street, Suite 3700 |
| Uintah and Ouray Indian Reservation | Denver, Colorado 80202 |
| Duchesne County, Utah | |
| Latitude 40.02993, Longitude -110.40752 | |

The equipment listed in this permit shall be operated by Berry Petroleum Company, LLC at the location described above.

B. Applicability

1. This federal Permit to Construct is being issued under authority of the MNSR Permit Program.
2. The requirements in this permit have been created, at the Permittee's request and pursuant to CAFO No. CAA-08-2013-0014, to establish legally and practically enforceable restrictions for limiting VOC and HAP TEG dehydration system emissions and VOC, CO, and formaldehyde engine emissions.
3. Any conditions established for this facility or any specific units at this facility pursuant to any permit issued under the authority of the PSD Permit Program or the MNSR Permit Program shall continue to apply.
4. By issuing this permit, EPA does not assume any risk of loss which may occur as a result of the operation of the permitted facility by the Permittee, Owner, and/or Operator, if the conditions of this permit are not met by the Permittee, Owner, and/or Operator.

C. Requirements for the TEG Dehydration System

1. Construction and Operational Limits
 - (a) The Permittee shall install and operate emission controls as specified in this permit on one (1) TEG natural gas dehydration system meeting the following specifications:
 - (i) Limited to a maximum throughput of 12 million standard cubic feet per day (MMscfd) of natural gas;
 - (ii) Equipped with no more than one (1) natural gas-fired TEG reboiler with a maximum rated heat input of 0.25 million British thermal units per hour (MMBtu/hr);

- (iii) Equipped with no more than one (1) TEG/gas separation unit and one (1) flash tank; and
 - (iv) Equipped with no more than one (1) TEG recirculation pump limited to a maximum pump rate of 3.50 gallons per minute (gpm).
- (b) Only the dehydration unit that is operated and controlled as specified in this permit is approved for installation and operation under this permit.

2. Emission Limits

- (a) Emissions from the TEG dehydration system shall not exceed the following limits:
- (i) VOC: 0.38 tons in any consecutive 12-month period; and
 - (ii) Total HAP: 0.14 tons in any consecutive 12-month period.
- (b) Emission limits shall apply at all times, unless otherwise specified in this permit.

3. Emissions Calculation Requirements

- (a) VOC and total BTEX emissions must be calculated, in tons, and recorded at the end of each month, beginning with the first calendar month that this permit is effective.
- (b) Prior to 12 full months of VOC and total BTEX emissions calculations, the Permittee must, within seven (7) calendars days of the end of each month, add the emissions for that month to the calculated emissions for all previous months since production commenced and record the total. Thereafter, the Permittee must, within seven (7) calendars days of the end of each month, add the emissions for that month to the calculated emissions for the preceding 11 months and record a new 12-month total.
- (c) VOC and total BTEX emissions shall be calculated, in tons, using GRI-GLYCalc™ Version 4.0 or higher. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1).

4. Control and Operational Requirements

- (a) The Permittee shall route all emissions from the TEG dehydration system process vent through a closed-vent system to an enclosed combustion device designed and operated as specified in this permit.
- (b) The Permittee shall design, install, continuously operate, and maintain the closed-vent system such that it is compliant with the closed-vent system requirements at 40 CFR 63.771(c).
- (c) The Permittee shall design, install, continuously operate, and maintain an enclosed combustion device such that the mass content of the uncontrolled emissions of VOC and total BTEX from the TEG dehydration system process vent are reduced by at least 98% by weight.

- (d) The Permittee shall follow the manufacturer's recommended maintenance schedule and operational procedures to ensure optimum performance of the TEG dehydration system, closed-vent system, and enclosed combustion device.

5. Testing Requirements

- (a) The Permittee shall demonstrate that the enclosed combustion device achieves 98% VOC and total BTEX emissions destruction efficiency and meets the VOC and total BTEX emissions limits in this permit by conducting performance tests of the enclosed combustion device in accordance with the procedures specified in this permit:
 - (i) An initial performance test shall be conducted within 180 days after the effective date of this permit;
 - (ii) Subsequent performance tests of the enclosed combustion device shall be conducted every 36 months thereafter in accordance with the procedures specified in this permit. Subsequent performance tests are not required for enclosed combustion devices that are model tested under and meet the criteria of 40 CFR 63.772(h); and
 - (iii) If the enclosed combustion device is repaired or replaced, the Permittee shall either conduct a performance test on the repaired or replaced unit within 180 days of starting operations of the repaired or replaced unit, or the unit shall be model tested by the manufacturer under and meeting the criteria of 40 CFR 63.772(h).
- (b) The Permittee shall demonstrate that the enclosed combustion device achieves 98% VOC and total BTEX emissions destruction efficiency and meets the VOC and total BTEX emissions limits in this permit using the following performance test methods and procedures:
 - (i) Method 1 or 1A, as appropriate for the selection of the sampling sites, as specified in 40 CFR 63.772(e)(3)(i);
 - (ii) Method 2, 2A, 2C, or 2D, of 40 CFR part 60, Appendix A to determine gas volumetric flowrate, as specified in 40 CFR 63.772(e)(3)(ii); and
 - (iii) Method 18 at 40 CFR Part 60, Appendix A, Method 25A at 40 CFR Part 60, Appendix A, ASTM D6420-99 (2004), or any other method or data that have been validated according to the applicable procedures in Method 301 at 40 CFR Part 63, Appendix A, to determine compliance with the 98% VOC and total BTEX emissions destruction efficiency requirement.
- (c) The Permittee shall perform testing of the inlet wet gas stream to the TEG dehydration system (extended wet gas analysis) at least once every consecutive 12-month period. The analysis shall include the inlet gas temperature and pressure at which the sample was taken.

6. Monitoring Requirements

- (a) The Permittee shall inspect the enclosed combustion device on a monthly and bi-annual basis to ensure proper operation according to the manufacturer's maintenance recommendations.

- (b) The Permittee shall inspect the pilot light on the enclosed combustion device at least once per calendar week to ensure that it is lit.
- (c) The Permittee shall inspect the closed-vent system on a monthly basis using the procedures specified in 40 CFR 63.773(c).
- (d) The Permittee shall install, operate, and maintain a meter that continuously measures the natural gas flowrate to the TEG dehydration system with an accuracy of plus or minus 2% or better. The meter shall be inspected on a monthly basis to ensure proper operation per the manufacturer's specifications.
- (e) The Permittee shall convert monthly natural gas flowrate to a daily average by dividing the monthly flowrate by the number of days in the month that the TEG dehydration system processed natural gas. The Permittee shall document the actual monthly average natural gas flowrate.
- (f) The Permittee shall determine the monthly and rolling 12-month VOC and total BTEX emissions using the model GRI-GLYCalc™, Version 4.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual.

7. Recordkeeping Requirements

- (a) The Permittee shall document compliance with the VOC and total BTEX emissions destruction efficiency and VOC and total BTEX emission limits in this permit by keeping the following records:
 - (i) All manufacturer and/or vendor specifications for the TEG dehydration system, closed-vent system, enclosed combustion device, and any monitoring equipment;
 - (ii) The results of all required performance tests;
 - (iii) All extended wet gas analyses;
 - (iv) The actual monthly average natural gas flow rate;
 - (v) All records required for the glycol dehydration unit, the closed vent system, and control device specified in 40 CFR 63.774, as appropriate; and
 - (vi) The total monthly and consecutive 12-month VOC and total BTEX emissions calculations for the TEG dehydration unit.

D. Requirements for Records Retention

- 1. The Permittee shall retain all records required by this permit for a period of at least five (5) years from the date the record was created.
- 2. Records shall be kept in the vicinity of the facility, such as at the facility, the location that has day-to-day operational control over the facility, or the location that has day-to-day responsibility for compliance of the facility.

E. Requirements for Reporting

1. Annual Emission Reports

- (a) The Permittee shall submit a written annual report of the actual annual emissions from all emission units at the facility each year no later than April 1st. The annual report shall cover the period for the previous calendar year. All reports shall be certified to truth and accuracy by the responsible official.
- (b) The report shall include VOC and total BTEX emissions.
- (c) The report shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

The report may be submitted via electronic mail to R8AirPermitting@epa.gov.

- 2. All other documents required to be submitted under this permit, with the exception of the Annual Emission Reports, shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Documents may be submitted via electronic mail to R8AirReportEnforcement@epa.gov.

- 3. The Permittee shall promptly submit to the EPA a written report of any deviations of emission or operational limits specified in this permit and a description of any corrective actions or preventative measures taken. A “prompt” deviation report is one that is post marked or submitted via electronic mail to r8airreportenforcement@epa.gov as follows:
 - (a) Within 30 days from the discovery of a deviation that would cause the Permittee to exceed the emission limits or operational limits if left uncorrected for more than five (5) days after discovering the deviation; and
 - (b) By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee’s ability to meet the emission limits.
- 4. The Permittee shall submit a written report for any required performance tests to the EPA Regional Office within 60 days after completing the tests.
- 5. The Permittee shall submit any record or report required by this permit upon EPA request.

II. General Provisions

A. Conditional Approval:

Pursuant to the authority of 40 CFR 49.151, the EPA hereby conditionally grants this permit to construct. This authorization is expressly conditioned as follows:

1. *Document Retention and Availability:* This permit and any required attachments shall be retained and made available for inspection upon request at the location set forth herein.
2. *Permit Application:* The Permittee shall abide by all representations, statements of intent and agreements contained in the application submitted by the Permittee. The EPA shall be notified 10 days in advance of any significant deviation from this permit application as well as any plans, specifications or supporting data furnished.
3. *Permit Deviations:* The issuance of this permit may be suspended or revoked if the EPA determines that a significant deviation from the permit application, specifications, and supporting data furnished has been or is to be made. If the proposed source is constructed, operated, or modified not in accordance with the terms of this permit, the Permittee will be subject to appropriate enforcement action.
4. *Compliance with Permit:* The Permittee shall comply with all conditions of this permit, including emission limitations that apply to the affected emissions units at the permitted facility/source. Noncompliance with any permit term or condition is a violation of this permit and may constitute a violation of the CAA and is grounds for enforcement action and for a permit termination or revocation.
5. *Fugitive Emissions:* The Permittee shall take all reasonable precautions to prevent and/or minimize fugitive emissions during the construction period.
6. *NAAQS and PSD Increments:* The permitted source shall not cause or contribute to a NAAQS violation or a PSD increment violation.
7. *Compliance with Federal and Tribal Rules, Regulations, and Orders:* Issuance of this permit does not relieve the Permittee of the responsibility to comply fully with all other applicable federal and tribal rules, regulations, and orders now or hereafter in effect.
8. *Enforcement:* It is not a defense, for the Permittee, in an enforcement action, to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
9. *Modifications of Existing Emissions Units/Limits:* For proposed modifications, as defined at 40 CFR 49.152(d), that would increase an emissions unit's allowable emissions of pollutants above its existing permitted annual allowable emissions limit, the Permittee shall first obtain a permit modification pursuant to the MNSR regulations approving the increase. For a proposed modification that is not otherwise subject to review under the PSD or MNSR regulations, such proposed increase in the annual allowable emissions limit shall be approved through an administrative permit revision as provided at 40 CFR 49.159(f).

10. *Relaxation of Legally and Practically Enforceable Limits:* At such time that a new or modified source within this permitted facility/source or modification of this permitted facility/source becomes a major stationary source or major modification solely by virtue of a relaxation in any legally and practically enforceable limitation which was established after August 7, 1980, on the capacity of the permitted facility/source to otherwise emit a pollutant, such as a restriction on hours of operation, then the requirements of the PSD regulations shall apply to the source or modification as though construction had not yet commenced on the source or modification.
11. *Revise, Reopen, Revoke and Reissue, or Terminate for Cause:* This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee, for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. The EPA may reopen this permit for a cause on its own initiative, e.g., if this permit contains a material mistake or the Permittee fails to assure compliance with the applicable requirements.
12. *Severability Clause:* The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.
13. *Property Rights:* This permit does not convey any property rights of any sort or any exclusive privilege.
14. *Information Requests:* The Permittee shall furnish to the EPA, within a reasonable time, any information that the EPA may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating this permit or to determine compliance with this permit. For any such information claimed to be confidential, the Permittee shall also submit a claim of confidentiality in accordance with 40 CFR Part 2, Subpart B.
15. *Inspection and Entry:* The EPA or its authorized representatives may inspect this permitted facility/source during normal business hours for the purpose of ascertaining compliance with all conditions of this permit. Upon presentation of proper credentials, the Permittee shall allow the EPA or its authorized representative to:
 - (a) Enter upon the premises where this permitted facility/source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit;
 - (c) Inspect, during normal business hours or while this permitted facility/source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 - (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements; and
 - (e) Record any inspection by use of written, electronic, magnetic and photographic media.

16. *Permit Effective Date:* This permit is effective immediately upon issuance unless comments resulted in a change in the proposed permit, in which case the permit is effective 30 days after issuance. The Permittee may notify the EPA, in writing, that this permit or a term or condition of it is rejected. Such notice should be made within 30 days of receipt of this permit and should include the reason or reasons for rejection.
17. *Permit Transfers:* Permit transfers shall be made in accordance with 40 CFR 49.159(f). The Air Program Director shall be notified in writing at the address shown below if the company is sold or changes its name.

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

18. *Invalidation of Permit:* Unless this permitted source of emissions is an existing source, this permit becomes invalid if construction is not commenced within 18 months after the effective date of this permit, construction is discontinued for 18 months or more, or construction is not completed within a reasonable time. The EPA may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between the construction of the approved phases of a phased construction project. The Permittee shall commence construction of each such phase within 18 months of the projected and approved commencement date.
19. *Notification of Start-Up:* The Permittee shall submit a notification of the anticipated date of initial start-up of this permitted source to the EPA within 60 days of such date, unless this permitted source of emissions is an existing source.

B. Authorization:

Authorized by the United States Environmental Protection Agency, Region 8

Darcy O'Connor, Acting Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

Date